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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|-------------|----------------------|---------------------|------------------|
| 10/087,275 | 03/01/2002 | Ryoichi Takayama | MAT-8235US | 3087 |
| 23122 | 7590 | 12/02/2003 | EXAMINER | |
| RATNERPRESTIA | | | SUMMONS, BARBARA | |
| P O BOX 980 | | | ART UNIT | |
| VALLEY FORGE, PA 19482-0980 | | | PAPER NUMBER | |

2817

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 10/087,275 | Applicant(s) TAKAYAMA ET AL. | |
| | Examiner Barbara Summons | Art Unit 2817 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-26 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The replacement sheet(s)/drawings were received on 9/2/03. These drawings are approved.

Specification

2. The amendment received 9/2/03 has overcome the prior objections to the specification.

Claim Rejections - 35 USC § 112

3. The amendment received 9/2/03 has overcome the prior § 112 rejections.

Maintained Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishihara et al. U.S. 5,909,156 (of record) taken in conjunction with Applicants' admitted prior art Fig. 29 for reasons of record repeated below.

Applicants' admitted prior art Fig. 29 discloses the well known arrangement of an antenna duplexer with an input terminal 301; a transmission filter 302; a phase shifter 303; a reception filter 304; an output terminal 305; and an antenna terminal 306 all arranged and connected as recited. However, Fig. 29 does not show a transmission filter being a surface acoustic wave (SAW) filter with the recited power durability.

Fig. 3 of Nishihara et al. discloses a SAW ladder filter for use as a transmission filter of an antenna duplexer (see col. 8, Ins. 8-9 and col. 1, Ins. 9-15) comprising: a circuit that is identical as seen from both ports thereof (see col. 8, Ins. 15-25 for the specific structures of the P-S-P'-S-P resonators); a substrate; and the resonators and conductor patterns disposed on the substrate in a symmetrical arrangement. Because the SAW filter circuit is symmetrical (i.e. P=P, S=S and P' in the middle), the filter must inherently have equal power durability at each of its input port and output/antenna port, and the SAW filter was especially designed for high power durability (see e.g. the abstract, the last three lines thereof). However, Nishihara does not specifically show a duplexer with a phase shifter connected thereto as recited.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the SAW filter of Nishihara (Fig. 3) by having used it as the transmission filter in a duplexer with a phase shifter such as taught, for example, by Applicants' admitted prior art Fig. 29 because Nishihara explicitly

suggested the use of its SAW transmission filter in a duplexer (see col. 1, lns. 9-15). It would have been equally obvious to one of ordinary skill in the art at the time the invention was made to have modified Applicants' admitted prior art Fig. 29 by having substituted the SAW transmission filter of Nishihara (Fig. 3, col. 8, lns. 8-25) in place of the generic transmission filter 302 of Applicants' admitted prior art Fig. 29, because such an obvious modification would have provided the advantageous benefit of increased power durability in a duplexer filter as suggested by Nishihara (see e.g. the abstract and col. 1, lns. 26-30).

Allowable Subject Matter

6. Claims 14-26 are allowable over the prior art of record.
7. Claims 4-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 9/2/03 have been fully considered but they are not persuasive.

Applicants' arguments are based on the Examiner's position that "[b]ecause the SAW filter circuit [of Nishihara] is symmetrical (i.e. $P=P$, $S=S$, and P' in the middle), the filter must inherently have equal power durability at each of its input port and output/antenna port." (see page 15, lns. 15-20 of the amendment). Applicants further

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state that “The Office Action further contends that its inherency argument is supported by the fact that the SAW filter in [N]ishihara was designed for high power durability.” (ibid.). Actually, the Examiner made the statement that in Nishihara “the SAW filter was especially designed for high power durability” (see the rejection above) in order to show that Nishihara solves the same problem in the art (i.e. is analogous art), and this statement has nothing to do with the inherency argument, which is solely based on the fact that the SAW filter is both physically and electrically symmetrical.

Applicants argue that “Nishihara nowhere discusses power durability at an output port of a transmission filter, power durability at an input port of a transmission filter, or a comparison of power durability at the output port with the power durability at the input port of a transmission filter” (see page 16, Ins. 1-4 of the amendment). This statement is correct, and that is why the Examiner used the inherency of equal power durability at the input and output of a symmetrical filter. Then Applicants circuitously argue that “there is no basis for this inherency contention in Nishihara in view of the fact that Nishihara nowhere discusses power durability at an output port and/or an input port” (see page 16, Ins. 5-9 of the amendment). The whole point of making an inherency contention is that the reference does not explicitly mention the feature or function that is inherent, in this case the input/output power durability.

Applicants argue that “the USPTO must present substantial evidence in support of an inherency rejection”, and it must be that “the facts asserted to be inherent are capable of instant and unquestionable demonstration” (page 16, Ins. 12-17 of the amendment). The Examiner has presented as evidence the fact that the SAW filter

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circuit of Nishihara is symmetrical (i.e. both physically and electrically), in which case it would be instantly apparent, "common knowledge", and unquestionable that the filter must in all instances have equal power durability at its input and output ports. In other words, there is nothing either physically or electrically provided in the circuit at its input/output ends to render the power durability at its input/output ports different.

In conclusion, the Examiner has met the burden of providing a "rationale or evidence tending to show inherency" (see MPEP § 2112), and the burden has shifted to "the Applicant to show an unobvious difference" (ibid.). Applicants have not attempted to show an unobvious difference, and their arguments are considered not persuasive.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Summons whose telephone number is (703) 308-4947. The examiner can normally be reached on M-Th, M-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Pascal can be reached on (703) 308-4909. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in cursive script that reads "Barbara Summons". The signature is written in black ink and includes a long horizontal flourish at the end.

bs
November 25, 2003

BARBARA SUMMONS
PRIMARY EXAMINER